

FORM PTO-1390 (Modified) (REV 11-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				LIP 006
INTERNATIONAL APPLICATION NO. PCT/DE00/03222	INTERNATIONAL FILING DATE 15 September 2000	U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 101088239		
TITLE OF INVENTION BEARING DEVICE		PRIORITY DATE CLAIMED 16 September 1999		
APPLICANT(S) FOR DO/EO/US STANGIER et al				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below. 4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c) (2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau c. <input type="checkbox"/> have not been made, however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)). 11. <input checked="" type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409). 12. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210). 				
Items 13 to 20 below concern document(s) or information included:				
<ol style="list-style-type: none"> 13. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 14. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 15. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 16. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 17. <input type="checkbox"/> A substitute specification. 18. <input type="checkbox"/> A change of power of attorney and/or address letter. 19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825. 20. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). 21. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 22. <input checked="" type="checkbox"/> Certificate of Mailing by Express Mail 23. <input type="checkbox"/> Other items or information: 				

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR
107088259INTERNATIONAL APPLICATION NO.
PCT/DE00/03222ATTORNEY'S DOCKET NUMBER
LIP 006

24. The following fees are submitted:.

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :

<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO	\$1040.00
<input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO	\$890.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO	\$740.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)	\$710.00
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)	\$100.00

CALCULATIONS PTO USE ONLY**ENTER APPROPRIATE BASIC FEE AMOUNT =**

\$890.00

Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)).

 20 30

\$0.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	9 - 20 =	0	x \$18.00	\$0.00
Independent claims	1 - 3 =	0	x \$84.00	\$0.00
Multiple Dependent Claims (check if applicable).			<input type="checkbox"/>	\$0.00

TOTAL OF ABOVE CALCULATIONS =

\$890.00

 Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.

\$0.00

SUBTOTAL =

\$890.00

Processing fee of \$130.00 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)).

 20 30

\$0.00

TOTAL NATIONAL FEE =

\$890.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).

\$40.00

TOTAL FEES ENCLOSED =

\$930.00

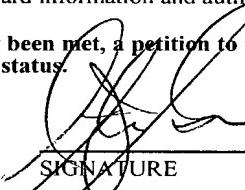
Amount to be: refunded	\$
charged	\$

- a. A check in the amount of \$930.00 to cover the above fees is enclosed.
- b. Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. _____. A duplicate copy of this sheet is enclosed.
- d. Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Steven J. Grossman
 Grossman, Tucker, Perreault & Pfleger, PLLC
 795 Elm Street, Suite 604
 Manchester, New Hampshire 03101
 USA


SIGNATURE

Steven J. Grossman

NAME

35,001

REGISTRATION NUMBER

March 18, 2002

DATE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. Of: STANGIER, T. et al.

National Stage of
PCT Application No.: PCT/DE00/03222

For: BEARING DEVICE

Filed: March 18, 2002 (Monday)

Attorney Docket: LIP 006

BOX PCT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Prior to examination and prior to calculation of fees, Applicants respectfully request that the following amendments be made to the above-identified application.

IN THE CLAIMS:

Please amend claim 5, as follows:

5. (Amended). A bearing device as set forth in claim 1 characterised in that it has a sealing edge (17).

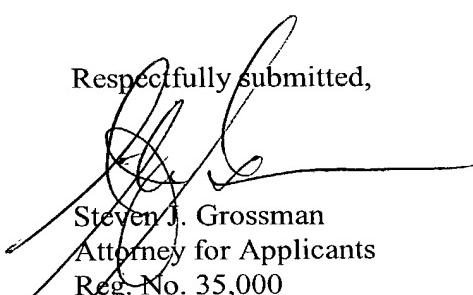
Please add new claims 7-9, as follows:

7. A bearing device as set forth in claim 2 characterised in that it has a sealing edge (17).
8. A bearing device as set forth in claim 3 characterised in that it has a sealing edge (17).
9. A bearing device as set forth in claim 4 characterised in that it has a sealing edge (17).

REMARKS

The present amendment is made solely for the purpose of removing a multiple dependency. A marked copy of the amendment to claim 5 is enclosed. In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 5-2121.

Respectfully submitted,


Steven J. Grossman

Attorney for Applicants

Reg. No. 35,000

Grossman, Tucker, Perreault & Pfleger, PLLC

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CERTIFICATE OF EXPRESS MAILING CERTIFICATE OF EXPRESS MAILING

“Express Mail” Mailing Label No. EV 043 245 337 US

Date of Deposit March 18, 2002 (Monday)

I hereby certify that this paper and the papers listed thereon are being deposited with the United States Postal Service “Express Mail Post Office to Addressee” service under 37 CFR 1.10 on the date indicated above and is addressed to BOX PCT APPLICATION, Assistant Commissioner of Patents, Washington, DC 20231.

Signature of Person Mailing Carol McClelland

Name of Person Mailing: Carol McClelland

**Marked Copy of Amended Claims
U.S. Patent Application Entitled "Bearing Device"
Filed: March 18, 2002 (Monday)
Attorney Docket: LIP 006**

5. (Amended). A bearing device as set forth in [one of] claim[s] 1 [through 4] characterised in that it has a sealing edge (17).

WO 01/20180

3/P,D

PCT/DE00/03222

Bearing device

5

The invention concerns a bearing device for rotatably receiving a control element in media-carrying conduits of an internal combustion engine with bearing receiving means which rotatably receive the control element and can be fixed in the conduits.

10 Preferably the control elements are in the form of a turbulence flap, a length switching flap or the like and the media-carrying conduits can be for example in the form of an induction system for vehicles.

15 The flaps have stub-like projections which extend substantially in the direction of their longitudinal extent and which are rotatably supported in the bearing receiving means. The stub-like projections, the flap and the bearing receiving means also have a steel shaft passing therethrough, the steel shaft being non-rotatably connected to the flap. The shaft is rotated by way of a setting unit which is preferably in the form of a stepping motor, thereby changing the setting angle of the flaps connected to the shaft. The 20 setting angle of the plate members is adjusted as desired by way of the positioning of the stepping motor. The mode of operation and the areas of use of turbulence flaps in induction systems are well-known to the man skilled in the art.

25 The stub-like projections on the flaps are not absolutely necessary; it is also possible for the bearing receiving means to rotatably receive shafts on which the flaps are non-rotatably arranged. The advantage of a steel shaft is that it can be supported in such a way as to be displaceable, whereby jamming of the flaps is prevented in the event of the steel shaft expanding due to the effect of heat.

30 For fitting each individual flap in the induction pipe, in the state of the art at least three components are required, which have to be assembled together, namely the flap with two respective bearing receiving means which have to be fitted on to the stub-like projections and which are

frequently referred to as 'bearing blocks'. Those bearing receiving means comprise substantially plate-like plastic elements with a through bore which operates as a bearing. The bearing receiving means in turn have to be fitted in the assembly position in receiving means of the induction pipe.

- 5 That fitting operation can involve problems in constricted engine compartments. Moreover, the fixing arrangement in accordance with the state of the art requires a relatively large amount of space as the bearing blocks must be of a certain minimum width in order to prevent unwanted tilting.

10 Therefore the technical object of the present invention is to further develop a bearing of the general kind set forth, in such a way that the installation thereof is simplified.

In accordance with the invention that object is attained in that the bearing receiving means can be connected by way of at least partially elastic connecting element to form a bearing unit and together with the connecting element and the inserted flap can be fitted into a receiving means provided in the induction pipe. By virtue of that configuration the bearing unit can be pre-assembled externally so that, upon assembly of the engine, the bearing unit only has to be fitted into a receiving means provided for same on the induction pipe. The procedure involved in inserting and accurately adjusting the bearings is eliminated as the bearings are held in the reference position by the connecting element. The elastic nature of the connecting element permits deformation of the bearing unit for fitting the otherwise rigid flap into the bearing openings of the bearings.

25 The substantial advantages of the invention lie in the capability of pre-assembly and the fact that the bearing unit can be of any desired configuration, thereby affording a great deal of freedom in terms of design from the point of view of plastic engineering.

30 Preferably the bearing receiving means and the connecting element are formed in one piece in a bush-like manner. That bush, that is to say the connecting element and the two bearings, with the receiving openings provided therein, are preferably injection molded in the form of a one-piece plastic component. The use of glass fiber-reinforced polyamides has proven

to be particularly desirable as they are both temperature-resistant and also resistant to the media which occur in the engine.

In the assembly procedure the bearing unit is bent open and the flap inserted. After the flap has been placed in the bearing receiving means, the
5 bearing unit contracts again to assume its original configuration.

It has proven to be particularly desirable for the bush to be substantially in the form of a C-shaped profile which can be bent open at the separation plane. For simplifying assembly and accurate fixing of the bearing unit in the induction pipe, it is also advantageous for the induction
10 pipe to be provided with a guide bar which engages into the bearing unit in the position of installation, in order to adjust it.

Finally, the bearing unit can be provided with an edge which is the upper edge in the position of installation and which serves as a sealing edge for further assemblies to be fixed on the induction pipe. In that way it is
15 possible for example to eliminate additional sealing elements between the induction pipe and the cylinder head.

An embodiment of the invention is described in greater detail hereinafter with reference to the drawings in which:

Figure 1 shows a perspective view of the bearing unit with assembled
20 flap,

Figure 2 shows a perspective view of the bearing unit without the inserted flap,

Figure 3 shows a perspective view of the flap,

Figure 4 shows a perspective view of the bearing unit during
25 assembly of the flap,

Figure 5 shows a side view in section taken along line V-V in Figure 2, and

Figure 6 shows a perspective view of a plurality of bearing units inserted into an induction manifold.

As can be seen in particular from Figures 1 and 2 the bearing unit
30 comprises a substantially rectangular bush-shaped plastic body. A turbulence flap 2 which is equally made from plastic material is rotatably fitted into the bearing unit 1. In the Figures, the bearing unit 1 is shown

turned through 180° relative to the position which it assumes in the situation of installation in the induction pipe 3 as shown in Figure 6.

Alternatively the flap 2 can be made from metal in order to prevent particles of plastic material coming away from the flap in the event of misfires. In order to implement optimum frictional pairing as between the flap 2 and the bearing unit 1 the bearing journals or projections 22, 23 of the turbulence flap 2 have a suitable plastic material injection molded therearound. Making the flap from steel, in comparison with making it from plastic material, enjoys the advantages that it has better dimensional accuracy and a higher level of stability in relation to misfires. In addition the cross-section of the flaps can be thinner in comparison with the plastic form of flap, and that entails a reduction in the degree of encroachment of the flap in the cross-section in the pipe.

The bearing unit 1 has two substantially mutually parallel bearing receiving means 10 and 11 which form the side limbs of the bearing unit. The bearing receiving means 10 and 11 are each provided with respective holes 12 and 13 which are oriented in co-linear relationship with each other. The stub-like projections on the turbulence flap 2 are rotatably accommodated in those holes in the position of installation.

The bearing receiving means 10 and 11 are connected together by way of a connecting element 14 which is injection molded thereon in one piece. The connecting element forms the longitudinal limb and the bearing receiving means 10 and 11 form the transverse limbs of the bearing unit 1. The connecting element 14 can be partially twisted in order to be able to fit the turbulence flap into the bearing unit 1. After deformation the bearing unit 1 returns to its original rest position again. For the purposes of inserting a flap 2 the bearing receiving means 10 and 11 can be bent out of their rest position into an angled position.

Adjoining the bearing receiving means 10 and 11 are limbs 15 and 16 which once again extend at a right angle to the bearing receiving means 10 and 11. The limbs 15 and 16 thus extend substantially parallel to the connecting element 14 and are injection molded in one piece to the bearing receiving means 10 and 11.

Provided between the ends of the limbs 15 and 16, which project toward each other, is a separation plane or opening so that the free ends of the limbs 15 and 16 do not touch each other. Integrally molded to the free ends of the limbs 15 and 16 are fixing limbs 15a and 16a which extend at a 5 right angle thereto. At the inward sides of the fixing limbs 15a and 16a, which face towards each other, also formed therein are guide grooves 15b and 16b into which engages a fixing bar which for example is provided on the induction pipe. That structure permits the bearing unit 1 to be accurately and simply fixed in the assembly for accommodating it. For the 10 assembly procedure, the bearing unit 1 which is already provided with the turbulence flap 2 only has to be pushed on to the fixing bar.

Figure 3 shows a perspective view of the turbulence flap 2. The turbulence flap 2 accordingly comprises a substantially flat flap member 20 on which is provided approximately at the center thereof a passage 21 for a 15 shaft, the passage 21 extending in the longitudinal direction in which the flap 2 extends. The passage 21 is of an internal quadrangular configuration into which the shaft which is also in the form of a quadrangular member engages and thus affords a non-rotatable connection to the turbulence flap 2. Provided in the longitudinal direction of the passage 22 on the turbulence 20 flap 2 are bush-like projections 22 and 23, the outsides of which are of the contour of a cylinder and which project beyond the ends of the flap member 20. The turbulence flap 2 can be fixed by those projections 22 and 23 in the bearing receiving means 10 and 11 of the bearing unit; in the received condition, the projections 22 and 23 are supported rotatably and without 25 play in the receiving means.

The procedure involved in mounting the turbulence flap 2 in the bearing unit 1 is shown in Figure 4. For the assembly operation, in the simplest variant the fixing limbs 15a and 16a are slightly bent away from each other, in which case the connecting element 14 is slightly bent at a 30 bend location 14a which is disposed approximately centrally, until it is possible to fit the projections 22 and 23 into the bearing receiving means 10 and 11 of the bearing unit 1. When the fixing limbs 15a and 16a are released the bearing unit contracts again to assume its initial shape.

It can be seen from the sectional side view in Figure 5 that the insides of the limbs 15 and 16, which are towards the turbulence flap 2, are in the form of flow walls 15c and 16c which extend inclinedly in relation to the direction of flow of the air 4 and which guide the air flowing thereto to 5 the turbulence flap 2. The bearing unit 1 extends around the turbulence flap 2 over the entire periphery in the closed position of the flap 2.

Depending on the situation of use, employing different bearing units 1 with differently inclined flow walls 15c and 16c makes it possible to implement the flow properties required without having to replace the entire 10 induction pipe 3. Instead, only the bearing unit 1 has to be replaced by a bearing unit which is of a suitably different configuration; the flow properties can thus be altered in a modular manner by the bearing unit 1. The bearing unit itself represents the internal geometry of the induction pipe 3.

15 The flow wall 15c is provided with a groove-shaped opening 15d which extends in the longitudinal direction and with which a previously established gap tolerance can be maintained in the closed position between the edge of the flap 2 and the bearing unit 1.

Figure 6 shows a perspective view of an induction manifold 3 which is 20 designed for a four-cylinder engine and into which are fitted four bearing units 1 provided with turbulence flaps 2. The bearing units 1 are fitted into openings suitably provided on the induction manifold 3, in a position of being turned through 180° relative to the orientations shown in Figures 1, 2, 4 and 5.

25 In the position of installation, the edges of the bearing units 1, which are the upper edges in the position of installation, serve as sealing edges 17 for assemblies which are connected to the induction pipe, thus for example a main flange of a cylinder head. By virtue of the bearing unit being of a configuration with a ridge-shaped sealing edge 17 integrally 30 formed thereon and projecting outwardly, it is possible to omit additional sealing means between the induction pipe and the cylinder head, whereby assembly of the structural units is markedly simplified.

The embodiment by way of example of the invention has been described hereinbefore with reference to a turbulence flap; it will be apparent to the man skilled in the art that the control element does not have to be in the form of a flap. The control element can for example also
5 be in the form of a roller.

List of references

- 1 bearing unit
- 2 turbulence flap
- 3 induction pipe
- 4 air flow direction
- 10 bearing receiving means
- 11 bearing receiving means
- 12 hole
- 13 hole
- 14 connecting element
- 14a bending location
- 15 limb
- 15a fixing limb
- 15b guide groove
- 15c flow wall
- 15d opening
- 16 limb
- 16a fixing limb
- 16b guide groove
- 17 sealing edge
- 20 flap
- 21 receiving means
- 22 projection
- 23 projection

CLAIMS

1. A bearing device for rotatably receiving a control element, in particular a turbulence flap (2), a length switching flap or the like, in media-carrying conduits of an internal combustion engine or the like with bearing receiving means (10, 11) which rotatably receive the control element and which can be fixed in the conduits, characterised in that the bearing receiving means can be connected by way of an at least partially elastic connecting element (14) to form a bearing unit (1) which can be inserted into a receiving means provided in the conduits.
2. A bearing device as set forth in claim 1 characterised in that the bearing receiving means (10, 11) and the connecting element (14) are made in one piece.
3. A bearing device as set forth in claim 2 characterised in that the bearing unit (1) is substantially in the configuration of a C-shaped profile.
4. A bearing device as set forth in claim 3 characterised in that the inside wall of the bearing unit (1) has a flow wall (15c) extending inclinedly relative to the direction of flow of the media flowing therethrough.
5. A bearing device as set forth in one of claims 1 through 4 characterised in that it has a sealing edge (17).
6. A bearing device as set forth in claim 4 characterised in that the flow wall (15c) is provided with an opening (15d).

WO 01/20180 A1

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

**(19) Weltorganisation für geistiges Eigentum
Internationales Büro**



**(43) Internationales Veröffentlichungsdatum
22. März 2001 (22.03.2001)**

PCT

**(10) Internationale Veröffentlichungsnummer
WO 01/20180 A1**

- (51) Internationale Patentklassifikation⁷:** F16C 33/20, 35/00, 11/04, F02B 27/02
- (21) Internationales Aktenzeichen:** PCT/DE00/03222
- (22) Internationales Anmeldedatum:** 15. September 2000 (15.09.2000)
- (25) Einreichungssprache:** Deutsch
- (26) Veröffentlichungssprache:** Deutsch
- (30) Angaben zur Priorität:** 299 16 333.4 16. September 1999 (16.09.1999) DE
- (71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US):** MONTAPLAST GMBH [DE/DE]; Krottorfer Strasse 25, 51597 Morsbach (DE).
- (72) Erfinder; und**
(75) Erfinder/Anmelder (nur für US): STANGIER, Theodor [DE/DE]; Auf dem Alzerberg 60, 51597 Morsbach (DE). DALCHOW, Rüdiger [DE/DE], Lobscheiderstrasse 27, 51643 Gummersbach (DE).
- (74) Anwalt:** BOBZIEN, Christoph; Lippert, Stachow, Schmidt & Partner, Frankenforster Strasse 135-137, 51427 Bergisch Gladbach (DE).
- (81) Bestimmungsstaaten (national):** DE, JP, US.

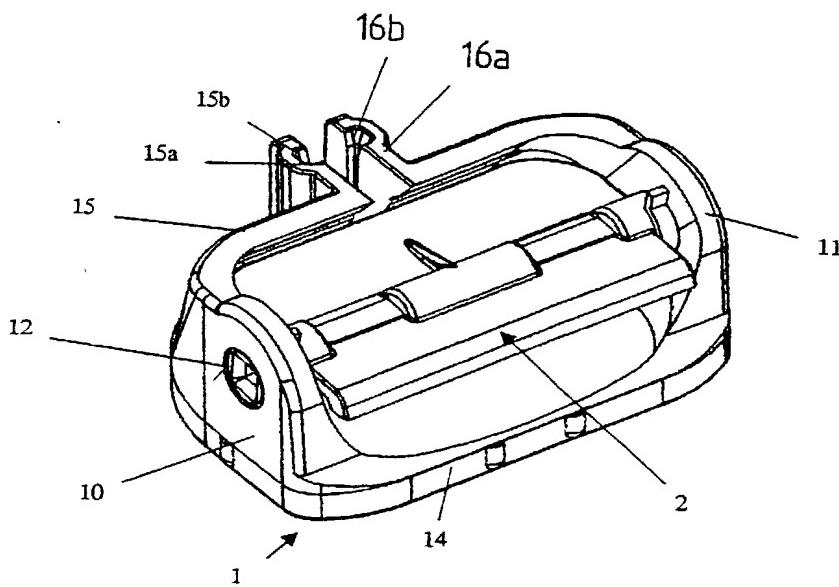
Veröffentlicht:

- Mit internationalem Recherchenbericht
- Vor Ablauf der für Änderungen der Ansprüche geltenden Frist. Veröffentlichung wird wiederholt, falls Änderungen eintreffen.

[Fortsetzung auf der nächsten Seite]

(54) Titel: BEARING DEVICE

(54) Bezeichnung: LAGERVORRICHTUNG



(57) Abstract: The aim of the invention is to improve a bearing device for rotatably receiving a control element (2) in lines which guide mediums and pertain to a combustion engine with bearing receptacles (10, 11), in such a way that the assembly thereof is simplified. The bearing receptacles rotatably receive the control element and can be fixed in the lines. To resolve the aim of the invention, the bearing receptacles are connected by means of an at least partially elastic connecting element (14) in such a way that said receptacles form a bearing unit (1). The bearing receptacles, together with the connecting element and the inserted flap, are inserted in a receptacle which is provided in the induction pipe.

[Fortsetzung auf der nächsten Seite]

15-MAR-2002FR

10:45 Lippert, Stachow, Schmidt&Partner

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\$ 003/006

FROM :GTPP

FAX NO. :6036682970

Feb. 22 2002 01:30PM -

Page 2 of 3

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R. Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

PCT/DK00/03222

15 September 2000

pending

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

15-MÄR-2002FR

10:45 Lippert, Stachow, Schmidt&Partner (FAX) +49220462606 \$ 004/006

FROM :GTPP

FAX NO. :6036682970

Feb. 22 2002 01:34MM P4

Page 3 of 3

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Steven J. Grossman
Donald J. Perreault
Edmund Paul Pfleger
Scott R. Faber

Reg. No. 35,001
Reg. No. 40,126
Reg. No. 41,252
Reg. No. 48,380

(24)

Send Correspondence to: Steven J. Grossman
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Direct Telephone Calls to: (name and telephone number)
Steven J. Grossman 603-668-6560 Fax: 603-668-2970

Full name of sole or first inventor
Theodor STANGER

11.03.2002

Date

Sole or first inventor's signature
Theodor Stanger

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Citizenship

German DEK

Post Office Address

same as residence

200 Full name of second inventor, if any
Rudiger DALCHOW

11.03.2002

Date

Second inventor's signature
Rudiger Dalchow

Residence

Lohsiederstrasse 21, 51643 Gummersbach, Federal Republic of Germany

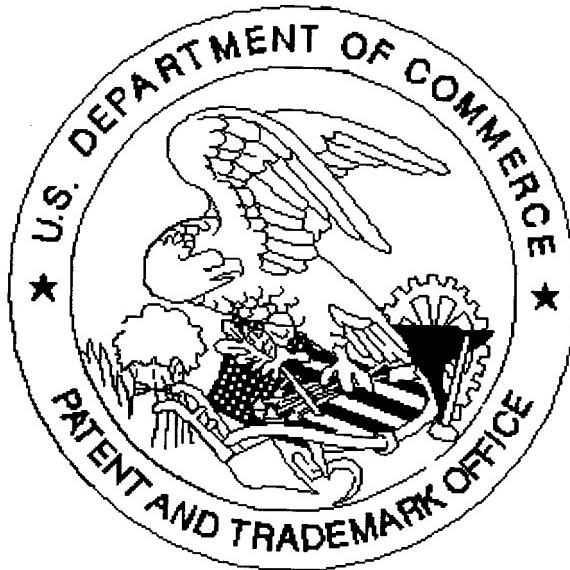
Citizenship

German DEK

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same as residence

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

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